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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|--|-------------|----------------------|---------------------|------------------|
| 10/760,255 | 01/21/2004 | Kia Silverbrook | MPA16US | 1570 |
| 24011 | 7590 | 11/24/2006 | EXAMINER | |
| SILVERBROOK RESEARCH PTY LTD 393 DARLING STREET BALMAIN, NSW 2041 AUSTRALIA | | | MARTIN, LAURA E | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2853 | |

DATE MAILED: 11/24/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

| | | | |
|------------------------------|--------------------------------------|---|--|
| Office Action Summary | Application No. 10/760,255 | Applicant(s) SILVERBROOK ET AL. | |
| | Examiner Laura E. Martin | Art Unit 2853 | |

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

Applicant's request for reconsideration of the finality of the rejection of the last Office action is persuasive and, therefore, the finality of that action is withdrawn.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-5 are rejected under 35 U.S.C. 102(b) as being anticipated by Silverbrook et al. (US 6439908) in view of Silverbrook (US 6443555).

Silverbrook et al. discloses:

As per claim 1, Silverbrook et al. teaches a printhead assembly comprising: at least one printhead module (figure 2, element 10) comprising at least two printhead integrated circuits (figure 2, element 18), each of which has nozzles (figure 3, element 42) formed therein for delivering printing fluid onto the surface of print media (column 3, lines 45-47), a support member (figure 8, elements 28 and 32 and column 2, lines 18-20) on which at least two printhead integrated circuits are fixedly mounted (column 4, lines 40-45 and lines 53-55; and figure 5, element 42) – the printhead integrated circuits are fixedly mounted via element 26), the support member being configured for supporting and carrying the printing fluid for the at least two printhead integrated circuits (figure 2, element 18), and an electrical connector (column 3, lines 64-65) for

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connecting electrical signals to at least two printhead integrated circuits; drive electronics incorporating at least one controller which is connected to at least one of the at least two printhead integrated circuits (figure 8) via the electrical connector for controlling the printing operation of at least one of the at least two printhead integrated circuits (column 3, column 59-65); and a casing (figure 2, element 14).

As per claim 2, Silverbrook et al. teaches a printhead assembly wherein the drive electronics (figure 3, element 18) is provided on at least one printhead circuit board (figure 8, element 48) which is supported by a support frame (figure 7, element 26 and 28) of the casing.

As per claim 3, Silverbrook et al. teaches a printhead assembly wherein the at least one printed circuit board (figure 8, element 48) carries at least one connection port (figure 7, element 54) for connecting with the electrical connector (column 4, lines 6-9).

As per claim 4, Silverbrook et al. teaches a printhead assembly wherein the at least one connection port is aligned with the electrical connector (column 4, lines 9-12).

As per claim 5, Silverbrook et al. teaches a printhead assembly wherein the at least one printhead module (figure 2, element 12) is formed as a unitary arrangement of the at least two printhead integrated circuits (figure 4, element 18), the support member, the electrical connector (column 4, lines 6-9) and at least one fluid distribution member (figure 7, element 30) mounting the at least two printhead integrated circuits to the support member, and the support member has at least one longitudinally extending channel for carrying the printing fluid for the printhead integrated circuits and includes a plurality of apertures extending through a wall of the support member arranged so as to

direct the printing fluid from the at least one channel to associated nozzles in both, or if more than two, all of the printhead integrated circuits by way of respective ones of the fluid distribution members (column 4, lines 41-44).

Silverbrook et al. does not disclose:

As per claim 1: a casing in which the at least one printhead module and drive electronics are removably mounted.

Silverbrook discloses:

As per claim 1: a casing in which the at least one printhead module and drive electronics are removably mounted (figure 9, elements 6, 65 and 66; column 5, lines 49-56; and column 7, lines 24-30).

It would have been obvious to one of ordinary skill in the art at the time of the invention to modify the assembly taught by Silverbrook et al. with the disclosure of Silverbrook in order to create a higher quality printhead assembly.

Response to Arguments

Applicant argues that there is no disclose of a controller connected to one or more of the printhead integrated circuits for a controlling operation; however, the examiner disagrees. In column 3, lines 56-65, a TAB film that is connected to a printed circuit board and busbar contacts to get data and power to the chip. In the broadest interpretation, the data and power applied to the chip can be considered a method of controlling. Also, the phrase "controller which is connected to at least one of the at least two printhead integrated circuits" does not necessarily mean that these two devices are separate. The controller and integrated circuits may have been connected at the time of

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production, to the point of being combined or made into a single unity. In that case, the Memjet chip (18) could be both the controller and the integrated circuit. Further definition of a controller is needed within the claim language as not all controllers need to have data processing, as the definition of a controller is a "regulating mechanism" and data and power both can be used to regulate a system. It is also noted that the drive electronics are shown in figure 8, element 48; the electrical contact pads are considered the drive electronics in the broadest interpretation of the claims.

Applicant also argues that the integrated circuits are not fixedly mounted to the support member; however, the examiner disagrees. The integrated circuits are fixedly mounted to the support member (element 32), which is in turn firmly secured to the support member (element 32). The applicant does not define how long the integrated circuits are fixed onto the support member, nor does he define whether the integrated circuits are perpetually fixed onto the support member or fixed for only a short time. As the claim is read, in the broadest interpretation, the examiner notes that the integrated circuits are fixedly mounted onto the support member.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura E. Martin whose telephone number is (571) 272-2160. The examiner can normally be reached on Monday - Friday, 7:00 - 3:30.

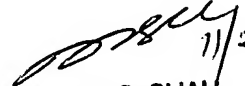
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen D. Meier can be reached on (571) 272-2149. The fax phone

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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Laura E. Martin


11/21/06
MANISH S. SHAH
PRIMARY EXAMINER